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Div. of Oil, Gas & Mining

# REVISED MINING AND RECLAMATION PERMIT APPLICATION

(Prior Permit No. M/021/008)

FOR THE IRON MOUNTAIN MINING DISTRICT NEAR  
CEDAR CITY, UTAH

October 2011

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Mountain Mining Permit (M/021/008). This Amended Application is not a replacement for these valid existing prior permits, but serves to place them in a combined format under M/021/008 as to clarify the current reclamation status of the entire project area.

### 1.3 PROJECT LOCATION/DESCRIPTION

The CML Property is located in Iron County, Utah, in portions Townships 35, 36, and 37 South, and Ranges 12, 13, and 14 West. Access to the mining area is from Utah Highway 56. The lat/long near the center of the only active pit, the CML Mine, is 37° 38' 57.14" N, 113° 21' 30.11". The mine is located about 18 miles west of Cedar City, Utah. The mine's main office is located at 1957 West Royal Hunte Drive Suite 200, Cedar City, Utah 84720.

Iron ore is mined from an existing open pit (CML Pit) using standard mining equipment. Currently, 477 acres of land are covered under the reclamation bond with DOGM. There are also 697 acres of non-bonded Pre-Act disturbed lands. Approximately 53 acres of bonded land is slated to be disturbed by the end of 2012, and 11 more acres are slated for disturbance in 2013. Most of this disturbance will occur as an expansion of the South Waste Dump area located just south of the ore storage, processing, and loadout area as mining will move downward in the pit. After 2013, the waste dump will have reached its maximum footprint, and additional overburden will be placed in successive lifts on top of the previous waste dump disturbance. At all times a berm is maintained at the base of the active waste dump with an adequate buffer to contain falling rock and eroded materials, and prevent off-site sedimentation and/or runoff.

All mining takes place within the CML pit, a pre-existing mining area.

When new lands are slated for disturbance, topsoil is removed from these lands and stockpiled for later use in reclamation. Several bermed topsoil stockpiles exist from previous mining activities.

To commence mining, overburden and/or interburden is blasted to rock sizes that range from 10 ft to minus ½ inch and transported via loader and 40-ton or 100-ton dump trucks to the South Waste Dump on graveled roads. Some blasted overburden is left in the pit, where a crusher is maintained to crush overburden for road base within the bermed mine area.

Exposed ore is blasted and loaded onto 40-ton and 100-ton haul trucks and hauled to the ore handling area. Here, ore is crushed in a primary crusher to 3-inch minus, with 95% passing ½ inch. The ore is then stockpiled in a container east of the crusher. The stockpiled ore is fed via conveyor into the SAG Mill, where the ore is ground to P<sub>80</sub> 142 micron. The ore is then fed into a Ball Mill, where it is ground to minus 53 micron. This final grind product is fed into the Magnetic Concentrate Plant (MCP), which entails a rougher Wet Low Intensity Magnetic Separation (WLIMS), two Cleaner WLIMS, followed by rougher Reverse Flotation. The Concentrate is dried via ceramic filter discs and stockpiled near the Loadout Area. The tails

## 8.2 FINDINGS

The majority of the undisturbed areas adjacent to the mining areas could not be considered "naturally occurring" as this area was subject to overgrazing in the early part of the century which allowed pinion and junipers to invade areas that were previously shrub and grass environments (Simper, 1991)

The average total vegetation cover percentage (54%) is probably not an accurate picture of what the cover would be considering a shrub/grass environment. Transects in nearby shrub and grass environment show a total vegetation cover of closer to 40%. A 40% cover of shrubs/grass is superior and more desirable than a 54% cover of junipers and pinions in this area.

## 8.3 RECOMMENDATIONS FOR SEEDING

The recommended broadcast seed mix is as follows:

Lbs live seed per acre:

Hycrest Crested Wheatgrass ( <i>Agropyron Cristatum</i> )	0.5
Indian Rice Grass ( <i>Oryxopsis Hymenoides</i> )	1.5
Piute Orchard Grass ( <i>Dactylis Glomerata</i> )	0.5
Great Basin Wildrye ( <i>Elymus Cenerius</i> )	1.5
Intermediate Wheatgrass ( <i>Agropyron Intermedium</i> )	1.5
Ladac Alfalfa ( <i>Medicago Sativa</i> )	0.5
Yellow Sweetclover ( <i>Melilotus Officinalis</i> )	0.5
Small Burnett ( <i>Sangvisorba Minor</i> )	1.0
Palmier Penstemon ( <i>Pentemon Palmeri</i> )	0.5
Rabbitbrush ( <i>Chrysothamnus Nauseous</i> )	0.25
Curleaf Mountan Mahogany ( <i>Cerococarpus Ledifolius</i> )	1.0
Bitterbrush ( <i>Purshia Tridentata</i> )	1.0
Mountain Sagebrush ( <i>Artemisia Tridentata Vaseyana</i> )	0.1
Forage kochia ( <i>Kochia Prostata</i> )	0.5

The operator will reserve the right to alter this seed mix depending on relative availability of the seed. If such an eventuality arises, DOGM will be duly notified.

## 9.0 ENVIRONMENTAL IMPACT ASSESSMENTS FOR AREAS NOT PREVIOUSLY PERMITTED

Due to the proposed construction of a Magnetic Concentrator on-site, an additional 32.25-acre area has been submitted to DOGM for approval to bond. The area, located just north of the current Ore

not been disturbed since 1996 or earlier. There is no indication of slippage, failure, or erosion. This indicates that the current Comstock waste dump configurations are stable, and that the extensions will also be stable.

Materials dumped on the Comstock waste dump extensions in 2011 and beyond will be very similar in size and physical characteristics to those contained in the existing dumps. They come from the same pit area. New material will be dumped from the top of the existing dump edge by rear-dump haul trucks onto stripped land below. The dump extensions will be constructed to the same configuration as the existing dumps, thus no instability problems are expected. Revegetation will be accomplished by ripping and broadcast seeding flat areas and hydroseeding areas too steep to rip using seed, a tackfier, and hydromulch. It is reasonable to expect that the dump slopes can be revegetated to 28% revegetation standard for open grass/shrub lands.

3. Topsoil: Topsoil is currently being stockpiled at the CML Pit (see Drawing IM-0100-7a). No topsoil recovery for Pre-Act disturbed areas is required as no significant recoverable topsoil exists.
4. Revegetation:
  - a. Soil Treatment: Soil treatment will consist of mulching or contour scarifying on sloping areas, drilling only on flat areas with depth depending on degree of compaction. No fertilizer will be applied in this area.
  - b. The Broadcast Seed Mix will be compiled from the list of recommended seed list in Section 8.3. Seed mix may be varied for each area at operator's discretion.
  - c. Planting will be in the fall. No water will be applied to the seeding. Seeding efforts will be concentrated on areas where success is feasible. Seeding of extremely rocky mine dump slopes is not necessary.
5. Haul Roads not subject to post-mine use will be scarified and reclaimed.
6. Structures put in service and remaining unusable will be removed, regraded, recontoured, and reseeded, bringing surface to natural configuration.
7. Fencing will remain in place or be installed around all waste dumps.
8. Remove all extraneous debris, trash, pipeline, and equipment.

Variances:

1. Open pits will be left in place (Rule M-10(3,13)). Extremely rocky pit slopes will not be seeded.